

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1-63. (Canceled)

1 64. (Currently Amended) A method of profiling a Web user, comprising:

2 monitoring packets at an Internet Service Provider (ISP) point of presence (POP);

3 identifying monitored packets associated with Web page requests;

4 anonymously capturing, at an the Internet Service Provider (ISP) point of presence

5 (POP), packets identified as being associated with Web page requests ~~anonymously;~~

6 extracting, at the ISP POP, a Uniform Resource Locator (URL) of the requested Web

7 page and an IP address of the packets identified as being associated with the Web page

8 request ~~and a Uniform Resource Locator (URL) of the requested Web page;~~

9 processing the extracted IP address to correlate the extracted IP address with a client

10 using a cross-reference table at the ISP POP;

11 associating each extracted URL with ~~[[a]]~~ the client correlated with the extracted IP

12 address making the Web page request;

13 determining a user ID associated with the client correlated with the extracted IP

14 address ~~each IP address of a client requesting a Web page;~~

15 for each client correlated with the extracted IP address, storing the URL of the

16 requested Web page and the user ID of the client associated with the extracted URL

17 associated with the client correlated with the extracted IP address;

18 developing a user profile for ~~user IDs~~ the user ID, at the ISP POP, based on the
19 extracted URLs associated with Web pages requested by ~~clients~~ the client having the user
20 IDs; and
21 cross referencing Web site profiles with the extracted URLs associated with Web
22 pages requested by [[a]] the client having the user ID to generate an updated user profile, at
23 the ISP POP, based on inferred user demographics of the Web sites requested by the client
24 having the user ID.

1 65. (Previously Presented) The method of Claim 64 wherein the profile of
2 the user contains data selected from demographic data.

1 66. (Previously Presented) The method of Claim 65 wherein said
2 demographic data is selected from the group consisting of user's age, user's gender, user's
3 income and user's highest attained education level.

1 67. (Previously Presented) The method of Claim 64 wherein the profile of
2 the user contains psychographic data.

1 68. (Previously Presented) The method of Claim 67 wherein said
2 psychographic data includes data on the user's interests.

1 69. (Previously Presented) The method of Claim 64, further comprising
2 providing a database associating each of said plurality of Web sites with demographic
3 characteristics of known persons who have accessed said sites.

1 70. (Previously Presented) The method of Claim 69 wherein said database
2 is provided by a Web site ratings service.

1 71. (Previously Presented) The method of Claim 64 wherein the user
2 profile comprises an update combined with an existing user profile.

1 72. (Previously Presented) The method of Claim 71 wherein the generating
2 a user profile comprises combining the profiles of the Web sites requested by a client having
3 the user ID to the existing user profile using an averaging algorithm.

1 73. (Previously Presented) The method of Claim 72 wherein said user
2 profile includes data on a plurality of demographic categories, each associated with a rating,
3 and the method further comprises filling in a value for the rating for any demographic
4 category having a low confidence measure.

1 74. (Previously Presented) The method of Claim 73 wherein filling in a
2 value comprises using an average rating of persons having similar profiles to that of said user
3 for a category having a low confidence measure.

1 75. (Previously Presented) The method of Claim 74 wherein said average
2 rating is determined using a clustering algorithm.

1 76. (Previously Presented) The method of Claim 64 further comprising
2 erasing records of which Web sites said user has visited after developing the user's profile to
3 protect user privacy.

1 77. (Previously Presented) The method of Claim 64 further comprising
2 delivering selective advertising to the client having the user ID based on the user profile
3 associated with the user ID.

1 78. (Previously Presented) The method of Claim 77 wherein delivering
2 selective advertising comprises transmitting a pop-up advertisement to a display of a
3 computer associated with a client having the user ID.

1 79. (Previously Presented) The method of Claim 64, wherein the
2 developing a user profile for user IDs further comprises generating, for a user associated a
3 user ID, a user profile having a rating for categories of Web sites of interest to the user and a
4 confidence measure representing an estimate of accuracy of a category's rating.

1 80. (Currently Amended) A computer for profiling a Web user, comprising:
2 a memory for storing a program;
3 a processor operative with the program to monitor packets at an Internet Service
4 Provider (ISP) point of presence (POP), to identify monitored packets associated with Web
5 page requests, to anonymously capture, from an at the Internet Service Provider (ISP) point
6 of presence (POP), packets identified as being associated with Web page requests
7 ~~anonymously~~, to extract, at the ISP POP, a Uniform Resource Locator (URL) of the
8 requested Web page and an IP address of the packets identified as being associated with the
9 Web page request and a Uniform Resource Locator (URL) of the requested Web page, to
10 process the extracted IP address to correlate the extracted IP address with a client using a
11 cross-reference table at the ISP POP, to associate each extracted URL with [[a]] the client
12 correlated with the extracted IP address making the Web page request, to determine a user ID
13 associated with the client correlated with the extracted IP address each IP address of a client
14 ~~requesting a Web page~~, to store, for each client correlated with the extracted IP address, the
15 URL of the requested Web page and the user ID of the client associated with the extracted
16 URL associated with the client correlated with the extracted IP address, to develop a user
17 profile for ~~user IDs~~ the user ID, at the ISP POP, based on the extracted URLs associated with
18 Web pages requested by ~~clients~~ the client having the user ~~IDs~~ ID; and to cross reference, at
19 the ISP POP, Web site profiles with the extracted URLs associated with Web pages
20 requested by [[a]] the client having the user ID to generate an updated user profile based on
21 inferred user demographics of the Web sites requested by the client having the user ID.

1 81. (Previously Presented) The computer of Claim 80 wherein the profile
2 of the user contains data selected from demographic data.

1 82. (Previously Presented) The computer of Claim 81 wherein the
2 demographic data is selected from the group consisting of user's age, user's gender, user's
3 income and user's highest attained education level.

1 83. (Previously Presented) The computer of Claim 80 wherein the profile
2 of the user contains psychographic data.

1 84. (Previously Presented) The computer of Claim 83 wherein said
2 psychographic data includes data on the user's interests.

1 85. (Previously Presented) The computer of Claim 90, further comprising a
2 database associating each of said plurality of Web sites with demographic characteristics of
3 known persons who have accessed said sites.

1 86. (Previously Presented) The computer of Claim 85 wherein said
2 database is provided by a Web site ratings service.

1 87. (Previously Presented) The computer of Claim 80 wherein the user
2 profile of the client having the user ID comprises an existing user profile.

1 88. (Previously Presented) The computer of Claim 87 wherein the
2 processor generates a user profile by combining the profiles of the Web sites requested by a
3 client having the user ID to the existing user profile using an averaging algorithm.

1 89. (Previously Presented) The computer of Claim 88 wherein said user
2 profile includes data on a plurality of demographic categories, each associated with a rating,
3 and the processor fills in a value for the rating for any demographic category having a low
4 confidence measure.

1 90. (Previously Presented) The computer of Claim 89 wherein the
2 processor fills in a value by using an average rating of persons having similar profiles to that
3 of said user for a category having a low confidence measure.

1 91. (Previously Presented) The computer of Claim 90 wherein said average
2 rating is determined using a clustering algorithm.

1 92. (Previously Presented) The computer of Claim 80 wherein the
2 processor erases records of which Web sites said user has visited after developing the user's
3 profile to protect user privacy.

1 93. (Previously Presented) The computer of Claim 80 wherein the
2 processor delivers selective advertising to the client having the user ID based on the user
3 profile associated with the user ID.

- 1 94. (Previously Presented) The computer of Claim 93 wherein the
- 2 processor delivers selective advertising by transmitting a pop-up advertisement to a display
- 3 of a computer associated with a client having the user ID.

1 95. (Currently Amended) A system for profiling a Web user and delivering
2 selective advertising to the user, comprising:
3 ~~—— means for capturing, at an Internet Service Provider (ISP) point of presence (POP),~~
4 ~~packets associated with Web page requests anonymously;~~
5 ~~—— means for extracting, at the ISP POP, an IP address associated with the Web page~~
6 ~~request and a Uniform Resource Locator (URL) of the requested Web page;~~
7 ~~—— means for associating each extracted URL with a client making the Web page~~
8 ~~request;~~
9 ~~—— means for determining a user ID associated with each IP address of a client requesting~~
10 ~~a Web page;~~
11 ~~—— means for storing the URL and the user ID of the client associated with the extracted~~
12 ~~URL;~~
13 ~~—— means for developing user profiles for user IDs, at the ISP POP, based on the~~
14 ~~extracted URLs associated with Web pages requested by clients having the user IDs; and~~
15 ~~—— means for cross referencing, at the ISP POP, Web site profiles with the extracted~~
16 ~~URLs associated with Web pages requested by a client having the user ID to generate an~~
17 ~~updated user profile based on inferred user demographics of the Web sites requested by the~~
18 ~~client having the user ID~~
19 monitoring packets at an Internet Service Provider (ISP) point of presence (POP);
20 identifying monitored packets associated with Web page requests;
21 anonymously capturing, at the Internet Service Provider (ISP) point of presence
22 (POP), packets identified as being associated with Web page requests ;

23 extracting, at the ISP POP, a Uniform Resource Locator (URL) of the requested Web
24 page and an IP address of the packets identified as being associated with the Web page
25 request;
26 processing the extracted IP address to correlate the extracted IP address with a client
27 using a cross-reference table at the ISP POP;
28 associating each extracted URL with the client correlated with the extracted IP
29 address;
30 determining a user ID associated with the client correlated with the extracted IP
31 address;
32 for each client correlated with the extracted IP address, storing the URL of the
33 requested Web page and the user ID associated with the client correlated with the extracted
34 IP address;
35 developing a user profile for the user ID, at the ISP POP, based on the extracted
36 URLs associated with Web pages requested by the client having the user IDs; and
37 cross referencing Web site profiles with the extracted URLs associated with Web
38 pages requested by the client having the user ID to generate an updated user profile, at the
39 ISP POP, based on inferred user demographics of the Web sites requested by the client
40 having the user ID.

1 96. (Previously Presented) The system of Claim 95 wherein the profile of
2 the user contains data selected from demographic data.

1 97. (Previously Presented) The system of Claim 96 wherein said
2 demographic data is selected from the group consisting of user's age, user's gender, user's
3 income and user's highest attained education level.

1 98. (Previously Presented) The system of Claim 95 wherein the profile of
2 the user contains psychographic data.

1 99. (Previously Presented) The system of Claim 98 wherein said
2 psychographic data includes data on the user's interests.

1 100. (Previously Presented) The system of Claim 95, further comprising
2 means for providing a database associating each of said plurality of Web sites with
3 demographic characteristics of known persons who have accessed said sites.

1 101. (Previously Presented) The system of Claim 100 wherein said database
2 is provided by a Web site ratings service.

1 102. (Previously Presented) The system of Claim 95 wherein the means for
2 generating a user profile comprises means for combining the profiles of the Web sites
3 requested by a client having the user ID to the existing user profile using an averaging
4 algorithm.

1 103. (Previously Presented) The system of Claim 102 wherein said user
2 profile includes data on a plurality of demographic categories, each associated with a rating,
3 the system further comprising means for filling in a value for the rating for any demographic
4 category having a low confidence measure.

1 104. (Previously Presented) The system of Claim 103 wherein the means for
2 filling in a value comprises means for using an average rating of persons having similar
3 profiles to that of said user for a category having a low confidence measure.

1 105. (Previously Presented) The system of Claim 104 wherein said average
2 rating is determined using a clustering algorithm.

1 106. (Previously Presented) The system of Claim 95 further comprising
2 means for erasing records of which Web sites said user has visited after developing the user's
3 profile to protect user privacy.

1 107. (Previously Presented) The system of Claim 95 further comprising
2 means for delivering selective advertising to the client having the user ID based on the user
3 profile associated with the user ID.

1 108. (Previously Presented) The system of Claim 107 wherein the means for
2 delivering selective advertising comprises means for transmitting a pop-up advertisement to a
3 display of a computer associated with a client having the user ID.

1 109. (Currently Amended) A computer readable medium comprising a program
2 for profiling a Web user by performing the steps of:
3 ~~—— capturing, at an Internet Service Provider (ISP) point of presence (POP), packets~~
4 ~~associated with Web page requests anonymously;~~
5 ~~—— extracting, at the ISP POP, an IP address associated with the Web page request~~
6 ~~and a Uniform Resource Locator (URL) of the requested Web page;~~
7 ~~—— associating each extracted URL with a client making the Web page request;~~
8 ~~—— determining a user ID associated with each IP address of a client requesting a~~
9 ~~Web page;~~
10 ~~—— for each client, storing the URL and the user ID of the client associated with the~~
11 ~~extracted URL;~~
12 ~~—— developing user profiles for user IDs, at the ISP POP, based on the extracted~~
13 ~~URLs associated with Web pages requested by clients having the user IDs; and~~
14 ~~—— cross referencing, at the ISP POP, Web site profiles with the extracted URLs~~
15 ~~associated with Web pages requested by a client having the user ID to generate an~~
16 ~~updated user profile based on inferred user demographics of the Web sites requested by~~
17 ~~the client having the user ID~~
18 monitoring packets at an Internet Service Provider (ISP) point of presence (POP);
19 identifying monitored packets associated with Web page requests;
20 anonymously capturing, at the Internet Service Provider (ISP) point of presence
21 (POP), packets identified as being associated with Web page requests ;

22 extracting, at the ISP POP, a Uniform Resource Locator (URL) of the requested
23 Web page and an IP address of the packets identified as being associated with the Web
24 page request;
25 processing the extracted IP address to correlate the extracted IP address with a
26 client using a cross-reference table at the ISP POP;
27 associating each extracted URL with the client correlated with the extracted IP
28 address;
29 determining a user ID associated with the client correlated with the extracted IP
30 address;
31 for each client correlated with the extracted IP address, storing the URL of the
32 requested Web page and the user ID associated with the client correlated with the
33 extracted IP address;
34 developing a user profile for the user ID, at the ISP POP, based on the extracted
35 URLs associated with Web pages requested by the client having the user IDs; and
36 cross referencing Web site profiles with the extracted URLs associated with Web
37 pages requested by the client having the user ID to generate an updated user profile, at
38 the ISP POP, based on inferred user demographics of the Web sites requested by the
39 client having the user ID.